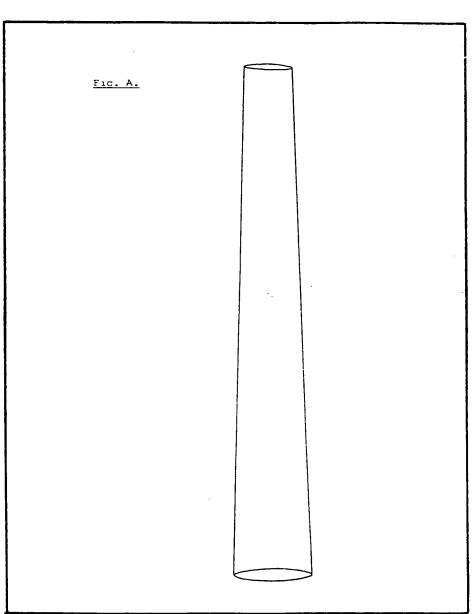
## UK Patent Application (19) GB (11) 2 128 462 A

- (21) Application No 8327827
- (22) Date of filing 18 Oct 1983
- (30) Priority data
- (31) 8230034
- (32) 21 Oct 1982
- (31) 8305538
- (32) 28 Feb 1983
- (33) United Kingdom (GB)
- (43) Application published 2 May 1984
- (51) INT CL<sup>3</sup> A01G 13/00
- (52) Domestic classification A1E 1X
- (56) Documents cited
  - GB A 2094602
    - GB 1584030
    - GB 1204647
    - GB 0882951
    - GB 0882951
    - GB 0598729
    - GB 0358020
    - US 4018003
    - Specification WO 82/01116
- (58) Field of search
  - A1E
- (71) Applicants
  - Dr. Richard William
  - Towler,
  - Mornington,
  - Walnut Hill,
  - Surlingham,
  - Norwich, \_
  - NR14 7DQ,
  - Carol Anne Towler,
  - Mornington, Walnut Hill,
  - Surlingham,
  - Norwich,
  - NR14 7DQ
- (72) Inventors
  - Dr. Richard William
  - Towler,
  - Carol Anne Towler
- (74) Agent and/or address for
  - service
  - R. W. Towler,
  - Mornington, Walnut Hill,
  - Surlingham,
  - Norwich,
  - NR14 7DQ

## (54) Protecting young trees

(57) A shelter for improving the growth of young trees consists of a translucent tube open at both ends and tapering from one end towards the other. A base plate of any suitable shape may be attached at approximately a right angle to the broader

end of the tube. Both base and tube may be corrugated or otherwise ridged and the top of the tube may have a lip for extra strength. The top of the tube may incorporate an arrangement for the attachment of a supporting stake and the wall may incorporate one or more pockets into which supports may be slotted.



GB 2 128 462 /

H K

u two

-

Fig. A.

## **SPECIFICATION** Individual conical tree shelters

10

This invention relates to a design of plastic tube which acts as a shelter for improving the 5 growth of young trees, being a tapering tube perhaps attached at its broader end to a base which when laid on the surface of the soil and weighed down with soil or turves anchors the tube over the young tree in an erect position.

For several years the Forestry Commission and others have been experimenting with various designs of individual tree shelter all made from some type of plastic sheet material formed into a tube. The tubes are either constructed on site or if 15 assembled beforehand packed flat for transport. All designs so far produced are attached to some form of supporting stake on site.

This invention has been developed to permit the stacking of one shelter within the next to 20 facilitate storage and transport of a large number of shelters within a small space and to investigate the feasibility of shelters being self-supporting.

According to the invention the shelter consists of a translucent tube open at both ends, of curved 25 cross-section and tapering linearly from one end towards the other; the shelter can be made up of two or more shorter tapering tubes slotted together, but each tube is of one-piece construction and not of a collapsible and re-30 usable kind; the shelter is unprovided with any means to close off or restrict its top opening.

A base-plate of any suitable shape may be attached at approximately a right angle to the broader end of the tube; both base and tube may 35 be corrugated or otherwise ridged and the top of the tube may have a lip for extra strength; the top of the tube-may incorporate an arrangement for the attachment of a supporting stake; the wall may incorporate one or more pockets into which 40 supports may be slotted.

Ideally the shelter would be constructed in one integral piece from a suitable plastic material, such as PVC, by a moulding technique, but other means of construction, including high-frequency 45 welding of sheet material may also be feasible.

In use the shelter is placed over a young tree with one end on the soil surface, so that the tree

can grow up the tube and, in due course, out of the top. Soil, turves or other material is placed 50 over the base-plate, if fitted, around the bottom of the shelter to anchor the device to the ground. Ideally the device is self-supporting but a bamboo cane or other suitable stake may be used to support the shelter if required. All shelters being 55 identical and tapering they may be slotted together in a compact stack for storage and transport.

The following drawing is attached: Fig. A a 3-dimensional drawing of the basic 60 device.

## Claims

1. An individual tree shelter consisting of a translucent plastic tube which is open at both ends, which is of curved-form cross-section, which tapers linearly from one end to the other so that several identical such shelters can be telescoped one within another for transport, which is of one-piece construction and not of a collapsible and re-usable kind and which is unprovided with any means to close off or restrict its opening.

2. An individual tree shelter as claimed in claim 1 with a base-plate of any suitable shape attached at approximately a right angle to the 75 broader end of the tube.

3. An individual tree shelter as claimed in claims 1 and 2 with base and or tube corrugated or otherwise ridged for extra strength.

4. An individual tree shelter as claimed in claim 80 1 with the top of the tube incorporating a lip for extra strength.

5. An individual tree shelter as claimed in claim 1 with the wall or top of the tube incorporating one or more slots or pockets or other 85 arrangement for the attachment of supporting

stakes or wires. 6. An individual tree shelter as claimed in claims 1 to 5, but with the shelter being made up

of two or more shorter tapering tubes slotted

90 together.

7. An individual tree shelter substantially as described with reference to and as shown in the accompanying drawing.